

**A COMPARATIVE STUDY
OF LIQUIDITY AND PROFITABILITY ANALYSIS OF
NEPALESE COMMERCIAL BANK**

A dissertation submitted to the Office of the Dean, Faculty of Management in partial
fulfillment of requirement for the Master's Degree

By

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December 2023

CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “**A Comparative Study of Liquidity and Profitability Analysis of Nepalese Commercial Bank**”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degree nor has it been proposed and presented as part of requirements for any other academic purposes. The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declared that all information sources and literature used are cited in the reference section of the dissertation.

Ayusha Pandey

December 2023

REPORT OF RESEARCH COMMITTEE

Ms. Ayusha Pandey has defended research proposal entitled “**A Comparative Study of Liquidity and Profitability Analysis of Nepalese Commercial Bank** “, successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Asso. Prof. Dr. Kapil Khanal and submit the thesis for evaluation and viva voce examination.

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Dissertation Proposal Defended Date

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Head of Research Committee

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Dissertation Viva Voce Date

APPROVAL SHEET

We have examined the dissertation entitled “**A Comparative Study of Liquidity and Profitability Analysis of Nepalese Commercial Bank** ” presented by Ms. Ayusha Pandey for the degree of Masters of Business Studies. We hereby certify that the dissertation is acceptable for the award of degree.

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Any remaining errors are mine.

Ayusha Pandey

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ABBREVIATIONS

ANOVA	:	Analysis of Variance
AQ	:	Assets Quality
CDR	:	Cash deposit ratio
CDR	:	Credit Deposit Ratio
HBL	:	Himalayan Bank Limited
L	:	Leverage
MBS	:	Master in Business Studies
NABIL	:	Nabil Bank Limited
NBL	:	Nepal Bank Limited
NRB	:	Nepal Rastra Bank
ROE	:	Return on Equity
SD	:	Standard Deviation
SPSS	:	Statistical Package for the Social Sciences

ABSTRACT

The objectives of research are to examine the current status of liquidity and profitability of the selected commercial bank in Nepal, to analyze the relationship between liquidity and profitability of the selected commercial bank in Nepal and to examine the impact of the liquidity toward profitability of the selected commercial bank in Nepal. The descriptive and casual comparative research design is used for the research. The secondary source of data are used and they are collected from the selected three sample bank out of twenty commercial bank in Nepal. Financial and statistical analysis are conducted. The financial analysis is done through different ratio and statistical analysis from the descriptive statistics, correlation and multiple regression analysis are used to analysis the data. The finding of the research is that Nepal bank limited shows that the current status of the research variables has very low level of fluctuation because the standard deviation is very low. The Nabil bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high and the Himalayan bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high. The relationship between cash deposit ratio and return on equity is significant in the NBL. The assets quality, credit deposit and leverage has not significant to the return on equity in the NBL. The relationship between credit deposit ratio and leverage and return on equity is significant in the NABIL. The assets quality and cash deposit has not significant to the return on equity in the NABIL. The relationship of Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage to the return on equity is not significant in the HBL. The impact of cash deposit ratio to the return on equity is significant in the NBL. The assets quality, credit deposit and leverage has not significant impact to the return on equity in the NBL. The impact credit deposit ratio to the return on equity is significant in the NABIL. The impact of assets quality, cash deposit and leverage has not significant to the return on equity in the NABIL. The impact of Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage has not significant impact to the return on equity in the HBL.

Keywords: *Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage*
and *Profitability*

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Banks play a significant role in the financial sector and contribute substantially to the economy (Met et al., 2008). While banks engage in various functions, their primary responsibility is to gather funds from the public and provide these funds as credits to businesses. Alongside this, banks offer services such as handling credit instruments, bill discounting, fund remittance, foreign currency exchange, and cheque processing, among others. Bank managers aim to convert deposits into loans to enhance profitability, yet they must balance this with the need to maintain liquidity by retaining a portion of those deposits. The dual objectives of profitability and liquidity create an ongoing decision dilemma for bank managers (Malik et al., 2016).

Liquidity, defined as the availability of cash for day-to-day operations, is crucial for both internal and external analysts due to its close association with business operations (Bhunja, 2010). A weak liquidity position jeopardizes a firm's solvency and profitability, making it financially unstable (Niresh, 2012). Common liquidity measures, such as the 'current ratio' and 'quick ratio,' are used to assess a company's ability to meet short-term liabilities promptly. A high current ratio is generally viewed positively as an indication of the firm's ability to meet its immediate financial obligations.

Effective liquidity management is vital for the survival of a business, requiring a careful balance between excessive and inadequate liquidity (Alshatti, 2014). Excessive liquidity can lead to lower profitability and unjustified speculation, while insufficient liquidity can disrupt business operations. Achieving a proper balance is essential for efficient business operations through skillful liquidity management.

In the commercial banking sector, liquidity represents the ability to fulfill obligations at maturity, encompassing lending and investment commitments, withdrawals, deposits, and accrued liabilities.

Profitability, on the other hand, involves generating income that surpasses liabilities (Olagunju, 2012). Investors are particularly interested in profitability ratios, as they impact

dividends and stock prices. Managers focus on measuring operating performance to instill confidence in potential investors, ensuring the success and survival of the banking business. Equity investors expect banks to increase lending for maximum returns, while depositors rely on banks to maintain sufficient idle cash to meet their demands (Ibbih, 2018).

Bank profitability, defined as the ability to generate revenue exceeding costs relative to the bank's capital base, contributes to the stability of the financial system (Athanasoglou et al., 2008). Commercial banks face the ongoing challenge of striking a balance between liquidity and profitability to achieve financial equilibrium. This involves navigating dilemmas such as determining the optimal mix of profitability and liquidity, choosing between income-generating investments and liquidity stability, understanding the relationship between profitability and liquidity, and identifying the causes of liquidity problems.

Presently, Nepal is grappling with liquidity issues at both the banking and national levels, impacting various sectors. This research is timely given the current liquidity problems, especially considering the financial crisis leading to the closure of loans by banks. The rationale for conducting research on liquidity and profitability is crucial at this juncture for enhancing organizational profits, which remains a primary objective for every company.

1.2 Problem Statement

The banking sector plays a crucial role in fostering economic development and employment by supporting the growth of new businesses. It is essential for banks to effectively manage liquidity, balancing the demand and supply appropriately. Concerns about liquidity arise due to potential mismanagement of resources, and adverse economic conditions may result in substantial cash withdrawals by depositors (Waleed et al., 2016). Commercial banks must navigate the delicate balance between liquidity and profitability to achieve financial equilibrium. This involves addressing liquidity management dilemmas, such as determining the optimal mix of profitability and liquidity, deciding between income-generating investments and prioritizing liquidity stability, understanding the relationship between profitability and liquidity, assessing the effects of liquidity on bank profitability, and identifying the major triggers or causes of liquidity problems in commercial banks. Precise evidence is crucial for informed decision-making in addressing these persistent challenges.

Managing liquidity in a bank is as challenging as in non-manufacturing organizations. Commercial banks, as significant financial institutions, play a vital role in the overall well-

being of the economy. Their responsibilities extend beyond those of other financial institutions, as they must be prepared to meet a considerable portion of their liabilities on demand without prior notice. Commercial banks collect funds through various deposit types to provide loans and advances to different sectors. To maximize returns, they must increase funds from deposits and investments. The primary goal of banking business is to mobilize public savings and lend to those in need. However, the challenge arises when the utilization of deposits increases, and disbursing loans elevates the cash balance, leading to potential liabilities on depositors' demands without notice. On the other hand, a large amount of idle cash balance can also decrease the profitability of banks. Liquidity management is crucial for the economic development of a country, and despite having 26 commercial banks in Nepal, resource mobilization remains a significant challenge.

Excessive liquidity indicates idle funds that do not generate profits for the firm, while insufficient liquidity can adversely affect a firm's credit standing, potentially leading to forced liquidation of assets (Smith, 1980; Ajanth, 2013). This research aims to provide an accurate assessment of the current ratio and enhance understanding of the liquidity position of banks. Commercial banks in Nepal, considered 'A' grade institutions, operate in small and rural areas, acting as investors in business projects. They invest in both long-term projects and short-term payments to savers, requiring careful management of liquidity for short-term obligations. The researcher seeks to answer questions related to the what, where, and whether of liquidity and profitability, examining the impact and relationship between the two. The research aims to address various questions raised through the formulation of research objectives.

The problem associated with the commercial banks related to the liquidity management and reinvestment aspects are highlighted below.

- What are the current status of liquidity and profitability of the selected commercial bank in Nepal?
- What is the relationship between liquidity and profitability of the selected commercial bank in Nepal?
- Whether there is any impact of the liquidity toward profitability of the selected commercial bank in Nepal?

1.3 Objective of the Study

The main objectives of the study were:

- 1) To examine the current status of liquidity and profitability of the selected commercial bank in Nepal.
- 2) To analyze the relationship between liquidity and profitability of the selected commercial bank in Nepal.
- 3) To examine the impact of the liquidity toward profitability of the selected commercial bank in Nepal.

1.4 Hypothesis of the Study

Hypothesis is the prediction of the study in future the possibility happened or not happened related statement. Here are the two statement in the research about the future accepted output from the research work.

H1: There is the significant relationship between liquidity and profitability of the selected commercial bank in Nepal

H2: There is the significant impact of the liquidity toward profitability of the selected commercial bank in Nepal.

1.5 Rationale of the Study

Liquidity serves as the fundamental foundation for an organization to function effectively in its day-to-day business activities. The smooth operation of a business is contingent upon the implementation of a well-structured liquidity management system. A proper liquidity management system entails maintaining an optimal level of liquidity, striking a balance that aligns with the exact requirements of the organization. Excess liquidity in a company can lead to inefficiencies in resource utilization, while insufficient liquidity may result in adverse effects, potentially leading to the company's shutdown.

Nepal is currently grappling with liquidity issues at both the banking and national levels, causing disruptions across various sectors. This research is timely and relevant due to the existing liquidity challenges. The banking sector has witnessed the closure of loans as a consequence of a financial crisis rooted in liquidity issues. The rationale behind this research lies in its potential to contribute to the enhancement of organizational profit, considering that profit stands as the primary objective for every company. Profit-making is a defining feature of successful companies, and banks, being profit-oriented entities, emphasize the crucial role of liquidity in achieving success. The interplay between liquidity and profitability is pivotal for

evaluating success in terms of profitability, making the rational exploration of this relationship especially crucial in the present circumstances.

1.6 Limitation of the Study

This study is subject to the following limitations:

- Only three sample selected commercial banks have been taken into consideration for the studied and they are NBL, NABIL and HBL out of 20 commercial bank in mid July 2023.
- This study covers all the relative data and information only for 10 years, i.e. from fiscal year 2012/13 to 2021/22.
- This study is based on the only secondary data.
- Accuracy of data if the annual report is accurately maintains.

CHAPTER-II

LITERATURE REVIEW

Chapter two includes the literature reviews. Here literature is reviews related to the topic liquidity and profitability of commercial banks. Here three section are defined first one is the conceptual reviews. Second section includes empirical reviews and third is research gaps.

2.1 Theoretical Review

Liquidity pertains to the speed and cost efficiency with which an asset can be converted into cash. Cash, in its physical form, is the most readily convertible and liquid asset. Assets that typically require an extended and exhaustive search for a buyer before they can be sold are classified as illiquid. The effective management of liquidity entails the estimation of liquidity needs and the provision for them in the most cost-effective manner possible. Banks have the option to acquire liquidity from both the asset and liability sides of the balance sheet, as well as from off-balance-sheet activities. A manager solely focused on adjusting the asset side for liquidity control may overlook less expensive sources of liquidity. On the other hand, concentrating solely on the liability side or relying excessively on purchased wholesale funds can expose the bank to market conditions and external influences beyond its control. Competent liquidity managers take into account the variety of available sources when formulating and executing their liquidity plan.

Theory of Assets Quality

Assets quality (A) represents the level of existing credit risk associated with a bank's loan and investment portfolio. It evaluates the quality of institutional loans, reflecting the institution's earnings. The assessment of assets quality involves rating investment risk factors that a company may encounter and comparing them to the company's capital earnings. Examiners also examine the impact of the fair market value of investments in comparison to the company's book value and investments. Assets quality is indicative of the effectiveness of an institution's investment policies and practices. Since a significant portion of a bank's income is derived from lending activities, the quality of assets, especially loan assets and investments, depends heavily on the institution's risk management system. Various measures can be employed to indicate the quality of assets held by banks. An increasing trend in the ratio of non-performing loans to total loans signals a deterioration in the quality of credit portfolios,

affecting the financial institution's cash flow and net income. It is often beneficial to supplement this information with data on non-performing loans net of provisions and the ratio of provision plus interest suspension on impaired loans to total loans, especially if impaired loans have not yet been classified as non-performing (Kolb & Rodriguez, 1996).

Theory Profitability

Profitability is determined by a bank's ability to generate sufficient earnings or reduce operational costs, indicating its efficiency. It is measured through ratios such as return on assets (ROA), return on equity (ROE), and net interest margin (NIM). These ratios summarize extensive financial data and aid in making qualitative judgments about the firm's profitability (Velnampy & Niresh, 2012). ROA is a ratio of income to total assets, signifying the management efficiency in generating net income from all institution resources (Khrawish, 2011). Bank profitability is influenced by internal and external factors. Internal factors are specific to the bank and include decisions made by management and the board, such as capital size, deposit liabilities, credit portfolio size and composition, interest rate policy, labor productivity, information technology status, risk level, management quality, bank size, and ownership (Ongore & Kusa, 2013).

Theory of Leverage

Leverage serves as a risk measurement tool in financial analysis, indicating the financial, operating, and investment-related risks of a company. Leverage ratios assess the amount of capital derived from debt and evaluate a company's ability to meet financial obligations. Companies utilize a mix of equity and debt to finance operations, making knowledge of the amount of debt crucial for evaluating whether a company can fulfill its debts as they come due (<https://www.investopedia.com>).

Credit Deposit Ratio

The Credit-Deposit Ratio represents the proportion of loan assets created by a bank from the deposits it has received. It signifies the loans and advances granted by the bank in relation to the amount accepted from savers as deposits. The ratio is calculated as Total Advances divided by Total Deposits (Singh & Tandon, 2012).

Cash Deposit Ratio

The Cash-Deposit Ratio is a measure of how much a bank lends out of the deposits it has mobilized. It indicates the portion of a bank's core funds utilized for lending, which is a primary banking activity (Goel & Kumar, 2016).

2.2 Empirical Review

2.2.1 Article Reviews in International Content

Shrestha and Chaurasiya (2023) conducted a study on the Influence of Liquidity Management on the Profitability of Joint Venture Commercial Banks in Nepal. The research employed various statistical analyses, including descriptive statistics, Pearson correlation, regression analysis, and t-test. The study utilized data from a sample size of five out of 27 joint venture commercial banks in Nepal. Liquidity management was assessed through variables such as Credit Deposit Ratio (CDR), Capital Adequacy Ratio (CAR), Current Reserve Ratio (CRR), Total Deposit to Total Ratio (TDTAR), and Total Loan to Total Assets Ratio (TLTAR). The findings revealed a strong positive correlation between the dependent variable and the set of independent variables, with a significant impact of TLTAR on Return on Assets (ROA) and insignificant impacts of CDR, CAR, CRR, and TDTAR on ROA.

Atabaeva et al. (2022) investigated the relationship between liquidity and economic development in Kyrgyzstan, discovering a negative correlation. The methodology used in this research is correlation and regression analysis. Despite the high liquidity ratio in the Kyrgyz banking system, no positive impact on economic growth was observed. The study did not find a significant relationship between liquidity ratio and deposit volume in Kyrgyzstan.

Hasmiana et al. (2022) explored the impact of financial risk, capital structure, and liquidity on operational efficiency and profitability in State-Owned Banks and Private Commercial Banks. The research utilized quantitative data collected through purposive sampling from secondary sources. The results indicated that financial risk, capital structure, and liquidity had a significant effect on operational efficiency, and financial risk, capital structure, liquidity, and operational efficiency collectively influenced profitability. However, financial risk, capital structure, and liquidity had no significant effect on profitability through operational efficiency.

Olaleye et al. (2021) conducted a study using the Johansen test to explore the relationship between liquidity and profitability in banks. The methodology used in this research is correlation and regression analysis. The results revealed a positive effect of liquidity on Return on Assets (ROA) and Return on Equity (ROE), but a negative effect on net profit

margin. The study concluded that banks maintained sufficient liquidity to fulfill their obligations, resulting in a stable trend in liquidity and profitability indicators from 1998 to 2018.

Paul et al. (2020) investigated the impact of liquidity on profitability in the commercial banking sector of Bangladesh. Correlation and regression analysis showed that Liquidity-to-Deposit Ratio (LDR), Debt Asset Ratio (DAR), and Credit Deposit Ratio (CDR) significantly affected profitability measured as Return on Equity (ROE). However, Loan Asset Ratio (LAR) and Cash Reserve (CR) were found to be insignificant. The study suggested that maintaining a balance between liquidity and profitability is crucial for Bangladeshi banks.

Khatri (2020) explored the relationship between liquidity and profitability in commercial banks in Nepal, analyzing data from ten out of twenty-seven listed commercial banks from 2013 to 2019. The study found a negative and significant relationship between Asset Quality (AQ) and Return on Assets (ROA) and a positive and significant relationship with Return on Equity (ROE). Cash Deposit Ratio (CADR) showed a positive but insignificant relationship with ROA and ROE, while Credit-Deposit Ratio (CDR) had a positive but insignificant relationship with ROA and a negative but insignificant relationship with ROE.

Abbas et al. (2019) investigated the influence of bank capital, liquidity level, and credit risk on the profitability of commercial banks in Asian developed economies compared to the USA banking industry. The methodology used in this research is correlation and regression analysis. The findings indicated that bank capital and credit risk influenced profitability similarly in Asian developed economies and the USA, while liquidity had a positive impact on profitability in Asian developed economies and a negative impact in the USA.

Ojha (2018) analyzed the relationship between liquidity, non-performing loans, return on assets, capital adequacy ratio, and return on equity, GDP, inflation, and interbank rate in Nepalese commercial banks. The study used panel data from 2010/11 to 2016/17, employing mean, standard deviation, correlation, and multiple regression analysis. The results revealed a significant influence of Return on Assets (ROA), Return on Equity (ROE), Non-Performing Loans (NPL), GDP, and Interbank Rate (IBR) on liquidity.

Alshatti (2014) explored liquidity management's impact on profitability in Jordanian commercial banks. The study included thirteen banks, examining liquidity indicators such as

investment ratio, quick ratio, capital ratio, net credit facilities/total assets, and liquid assets ratio. Return on Equity (ROE) and Return on Assets (ROA) served as proxies for profitability. The results indicated a positive effect of the increase in the quick ratio and investment ratio on

S.N	Authored/ Date of Publication	Objectives	Methodology	Findings and Conclusion
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profitability, while the capital ratio and liquid assets ratio had a negative impact.

Lukorito et al. (2014) studied the financial sector in Kenya, focusing on the effect of internal factors, including liquidity, on the profitability of commercial banks. The research used panel data from all 43 commercial banks in Kenya from 2009 to 2013. The findings revealed a statistically significant and positive relationship between liquidity and banks' profitability.

Akter and Mahmud (2014) explored the relationship between liquidity (measured as the current ratio) and profitability (measured as return on assets) in the banking industry in Bangladesh. The study considered twelve banks across government, Islami, multinational, and private commercial sectors. Linear regression analysis found no significant relationship between liquidity and profitability in any of the sectors, concluding that, based on the sample and category, there is no significant relationship between liquidity and profitability in banks of different sectors in Bangladesh.

Lartey et al. (2013) investigated the relationship between liquidity and profitability of banks listed on the Ghana Stock Exchange. The methodology used in this research is correlation and regression analysis. The study, covering the period from 2005 to 2010, found a weak positive relationship between liquidity and profitability, with both indicators declining during that period.

Table 1

Summary of the International Article Review

1	Shrestha and Chaurasiya (2023)	To conducted a study on the Influence of Liquidity Management on the Profitability of Joint Venture Commercial Banks in Nepal.	The research employed various statistical analyses, including descriptive statistics, Pearson correlation, regression analysis, and t-test. The study utilized data from a sample size of five out of 27 joint venture commercial banks in Nepal.	The findings revealed a strong positive correlation between the dependent variable and the set of independent variables, with a significant impact of TLTAAR on Return on Assets (ROA) and insignificant impacts of CDR, CAR, CRR, and TDTAR on ROA.
2	Atabaeva et al./ (2022)	To investigated the relationship between liquidity and economic development.	Correlation and regression analysis	The study did not find a significant relationship between liquidity ratio and deposit volume in Kyrgyzstan.
3	Hasmiana et al. / (2022)	To explore the impact of financial risk, capital structure, and liquidity on operational efficiency and profitability in State-Owned Banks and Private Commercial Banks.	The research utilized quantitative data collected through purposive sampling from secondary sources.	The results indicated that financial risk, capital structure, and liquidity had a significant effect on operational efficiency, and financial risk, capital structure, liquidity, and operational efficiency collectively influenced profitability.
4	Olaleye et al./	To conducted a		The results revealed a

- (2021) study using the Johansen test to explore the relationship between liquidity and profitability in banks positive effect of liquidity on Return on Assets (ROA) and Return on Equity (ROE), but a negative effect on net profit margin. The study concluded that banks maintained sufficient liquidity to fulfill their obligations, resulting in a stable trend in liquidity and profitability indicators from 1998 to 2018.
- 5 Paul et al. / (2020) To investigated the impact of liquidity on profitability in the commercial banking sector of Bangladesh. To investigated Correlation and regression analysis showed that Liquidity-to-Deposit Ratio (LDR), Debt Asset Ratio (DAR), and Credit Deposit Ratio (CDR) significantly affected profitability measured as Return on Equity (ROE). Loan Asset Ratio (LAR) and Cash Reserve (CR) were found to be insignificant. The study suggested that maintaining a balance between liquidity and profitability is crucial for Bangladeshi banks.
- 6 Khati (2020) To explored the relationship between liquidity and profitability in commercial banks in Nepal. Analyzing data from ten out of twenty-seven listed commercial banks from 2013 to 2019. The study found a negative and significant relationship between Asset Quality (AQ) and Return on Assets (ROA) and a positive and significant relationship with Return on Equity (ROE). Cash Deposit

Ratio (CADR) showed a positive but insignificant relationship with ROA and ROE, while Credit-Deposit Ratio (CDR) had a positive but insignificant relationship with ROA and a negative but insignificant relationship with ROE.

- 7 Abbas et al. (2019) To investigate the influence of bank capital, liquidity level, and credit risk on the profitability of commercial banks in Asian developed economies compared to the USA banking industry. The methodology used in this research is correlation and regression analysis. The findings indicated that bank capital and credit risk influenced profitability similarly in Asian developed economies and the USA, while liquidity had a positive impact on profitability in Asian developed economies and a negative impact in the USA.
- 8 Ojha (2018) To analyze the relationship between liquidity, non-performing loans, return on assets, capital adequacy ratio, and return on The study used panel data from 2010/11 to 2016/17, employing mean, standard deviation, correlation, and multiple regression analysis. The results revealed a significant influence of Return on Assets (ROA), Return on Equity (ROE), Non-Performing Loans (NPL), GDP, and Interbank Rate (IBR) on liquidity.

- equity, GDP, inflation, and interbank rate in Nepalese commercial banks.
- 9 Alshatti / (2014) To explored liquidity management's impact on profitability in Jordanian commercial banks. The study included thirteen banks, examining liquidity indicators such as investment ratio, quick ratio, capital ratio, net credit facilities/total assets, and liquid assets ratio. Return on Equity (ROE) and Return on Assets (ROA) served as proxies for profitability. The results indicated a positive effect of the increase in the quick ratio and investment ratio on profitability, while the capital ratio and liquid assets ratio had a negative impact.
- 10 Lukorito et al. (2014) To Study the financial sector in Kenya, focusing on the effect of internal factors, including liquidity, on the profitability of commercial banks. The research used panel data from all 43 commercial banks in Kenya from 2009 to 2013. The findings revealed a statistically significant and positive relationship between liquidity and banks' profitability.
- 11 Akter and Mahmud/ To explored the relationship between twelve banks across They found no significant relationship between

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12 (2013)	Lartey et al. To investigated The methodology used They found a weak the relationship in this research is positive relationship between correlation and between liquidity and liquidity and regression analysis. profitability, with both profitability of indicators declining banks listed on during that period. the Ghana Stock Exchange.
13 al./ (2011)	Adebayo et To explore The study, using both They found a significant liquidity structured and relationship between management unstructured liquidity and profitability. and its impact questionnaires and on commercial financial reports banks' profitability in Nigeria.

2.2.2 Reviews of Previous Thesis

Pokhrel (2018) conducted a thesis titled "Management of Deposit and Liquidity and Its Impact on Profitability of Joint Venture Finance" focused on Nabil Bank Limited and Himalaya Bank Limited. The primary objectives were to analyze the composition of assets and liabilities,

examine the utilization of assets, and evaluate the trend of deposits and loans in joint venture finance in Nepal. The major findings highlighted that both Nabil and HBL excelled in collecting total deposits, indicating profitability potential by mobilizing deposits in the productive sector. The analysis also revealed better cash and bank balance performance in HBL, NABIL, and EBL, reflecting their readiness to serve consumer deposits compared to SBI bank.

Karki (2018) presented an article on "A Study on Liquidity and Loan Portfolio Management of Himalayan Bank Limited And Nepal SBI Bank Limited." The methodology used the descriptive statistics analysis. The analysis of cash and bank balance to current deposit ratio emphasized NIBL's robust liquidity position, nearly three times stronger than HBL and NABIL. The evaluation of liquidity fund to total deposit ratio indicated strong liquidity capacity for meeting short-term obligations, particularly in HBL and NIBL.

Hustan (2017) discussed liquidity as a characteristic that can be readily convertible to cash in the article "Liquidity is the Characteristic of an Item that can be Readily Convertible to Cash." The methodology used the descriptive statistics analysis. The management of liquidity is crucial for measuring a firm's ability to settle current obligations without disrupting daily operations.

Shrestha (2016) published an article on "The Efficiency of Liquidity Monitoring and Forecasting Framework at Nepal Rastra Bank" within the context of liquidity management in the Nepalese banking and financial system. The methodology used the descriptive statistics analysis. Liquidity management was emphasized as part of the risk management framework in the financial services industry. High liquidity risk and credit risk were identified as factors contributing to financial failures.

Luitel (2016) conducted research on "Investment & Liquidity Management of Insurance Companies," focusing on analyzing investment patterns, liquidity management, and profit trends of insurance companies. Most insurance companies were found investing in government securities, debentures, and shares of other companies, while risk-averse behavior was observed in their investment decisions.

Walt (2015) presented an article on "Sound Practices for Managing Liquidity in Banking Organizations," emphasizing the crucial role of liquidity in funding increases in assets and

meeting obligations. Sound liquidity management was highlighted as a key factor in reducing the probability of serious problems and preventing system-wide repercussions.

Malla (2015) conducted research on the "Financial Performance of Banks with Special Reference to Himalayan & NABIL Bank Ltd." The objectives included analyzing liquidity management, deposit and investment positions, and establishing relationships between deposit, investment, loans, advances, and net profit. The findings revealed that both Himalayan and NABIL banks maintained high liquidity ratios, with NABIL having a higher total liability-to-total assets ratio.

Dhungana (2014) conducted research on the "Liquidity Position of Commercial Banks in Nepal," focusing on BOK, SCBL, SBI, Manjushree, NIBL, and NABIL. The study examined the relationship between liquidity and profitability, liquidity positions of these banks, and the correlation between liquidity and interest rates. NRB to total deposit ratio of SBI bank was noted to be greater than other banks, and correlations between changes in deposit and total liquidity varied among the banks.

Nagarkoti (2013) published an article on "Liquidity Risk Management and Self-Paced A/L Management," emphasizing the need for aligning available liquidity with anticipated needs. Liquidity risk was described as highly scenario-specific, with the quantity of liquidity needed being linked to the sum of current liabilities and new assets requiring funding.

2.3 Research Gap

This study focuses on examining the relationship between liquidity and profitability in a commercial bank in Nepal. The research employs descriptive and casual comparative research design methods. Data is collected from secondary sources, and the sample size is limited to five banks. The study spans a specific timeframe of ten years. The analytical tools applied in the research include descriptive statistics, correlation, and regression.

It is notable that previous researchers Hasmiana et al. (2022); Shrestha and Chaurasiya (2023); Olaleye et al. (2021); Abbas et al. (2019) are in this domain have utilized samples with fewer than five banks, and their investigations extended beyond the banking sector. Moreover, these studies typically covered a shorter timeframe of five years. The research designs of previous studies were primarily descriptive, relying solely on descriptive statistical analysis.

For future researchers, there is potential to explore variations in research methodologies. They may choose to focus on a single bank or opt for an all-encompassing population sample. Additionally, future studies could involve the use of either one or multiple dependent variables, along with varying the number of independent variables, which could be fewer or more than four. Researchers may also consider incorporating primary data collection methods. Furthermore, exploring research designs other than descriptive and casual comparative designs could provide a richer understanding of the liquidity-profitability dynamics in commercial banks.

CHAPTER-III

RESEARCH METHODOLOGY

The research methodology serves as a set of specific procedures and techniques employed to identify, select, process, and analyze information related to a particular topic. Within a research paper, the methodology section enables readers to critically assess the overall validity and reliability of the study. This chapter provides a comprehensive roadmap for the research endeavors.

3.1 Research Design

To fulfill the research objectives, a descriptive and causal comparative research design has been embraced. Descriptive research design is characterized by its systematic approach to gathering information aimed at describing a phenomenon, situation, or population. It primarily addresses the questions of what, when, where, and how, focusing on the detailed description of variables such as Assets Quality, Credit Deposit Ratio, Cash Deposit Ratio, Leverage, return on assets, and return on equity. On the other hand, causal research, also known as explanatory research, explores potential cause-and-effect relationships between two distinct events. It investigates whether changes in one independent variable lead to changes in the dependent variable, establishing a causal connection.

3.2 Population and Sample

Table 2

Population and Sample

S.N.	Commercial Banks	Sample	Owner status
1.	Nepal Bank Limited	1	Government and public
2.	Nabil bank limited	1	Joint venture bank
3.	Himalayan Bank Limited	1	Joint venture with Habib Bank Ltd
	Total	3	

The sampling process involves random sampling, where the selection of the sample is based on a random basis. Correspondingly, financial statements from three commercial banks over a research period of ten years, i.e., FY 2012/13 to FY 2021/22, have been chosen as the sample for the research.

During the fiscal year 2021/22, there are a total of 20 commercial banks in Nepal. Out of these 20 commercial banks, three banks have been selected for the study. These three commercial banks are specifically chosen as the sample banks for the research.

3.3 Nature and Sources of Data

This study relies on secondary data, which will be employed to analyze the relationship, cause-and-effect associations, and predictive strength between dividend policy and its influencing factors. The data for firm-specific variables will be gathered from the annual reports of the sample firms available in the database provided on their respective websites. Additionally, data from the NEPSE, SEBON, and NRB databases will be extracted to fulfill the study's requirements. Determinants of dividends for commercial banks will be collected for each year from 2012/13 to 2021/22. The study will utilize panel data to analyze the relationship between liquidity and profitability.

3.4 Instrument of Data Collection

The instrument refers to the tools used in data collection. Primary data collection involves various instruments such as questionnaires, observations, interviews, laboratory experiments, quasi-experiments, scales, etc.

Secondary data are collected from the websites of the respective banks and annual reports published by the banks. Data from NRB (Banking and Financial Statistics), economic reports, and other published statistical sources are utilized. Additionally, informal talks and procedures are employed to gather additional information.

3.5 Methods of Analysis

Various financial and statistical tools/methods are used to achieve the study's objectives. The analysis of data is conducted according to the available data pattern.

3.5.1 Statistical Analysis

Descriptive Statistics Analysis

Descriptive analysis involves analyzing the mean, standard deviation, minimum, and maximum of the given variables. It provides a summary of the data related to the sample banks over ten fiscal years.

Arithmetic Mean

The arithmetic mean or average is calculated as the sum of total values divided by the number of observations in the sample. It serves as a measure of central tendency, representing the overall data lying between the two extremes. In this study, the arithmetic mean is utilized in the data related to sample banks over ten fiscal years.

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n}$$

Where, \bar{X} = Mean

$\sum X$ = Sum of all the variable X

n = Variable involved

Standard Deviation (σ):

The standard deviation is the non-negative square root of the average sum of squares of deviations of observations from the arithmetic mean of the distribution. Serving as a widely employed and valuable measure of dispersion, standard deviation provides consistent, accurate, and reliable results. The concept of standard deviation was introduced by Karl Pearson in 1823 and is symbolized by the small Greek letter sigma. Standard deviation serves as an indicator of the extent of variation or dispersion within a set of values. It is computed as the square root of the variance, which involves determining the deviation of each data point in relation to the mean.

It is denoted by (σ).

$$\text{Standard Deviation } (\sigma): \text{S.D} = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

Where,

X=variables

\bar{X} = mean

N= No. of Period

Minimum and Maximum:

The minimum represents the lowest value within the given data and is synonymous with the lower quartile of the respective variable under investigation. Essentially, it is the data point that is less than or equal to all other values in the dataset. When arranging the data in ascending order, the minimum is the initial number in the list. While the minimum value may be repeated, it is a unique number, as there cannot be two minima, with one value necessarily

being less than the other. The maximum signifies the highest value within the given data and corresponds to the upper quartile of the respective variable in the research. The maximum is the data value that is greater than or equal to all other values in the dataset. In ascending order, the maximum is the last number listed. Similar to the minimum, the maximum is a unique number for a given dataset. Although this number can be repeated, there is only one maximum, as one value must be greater than the other.

Correlation Analysis:

Correlation analysis is a statistical tool employed to ascertain the direction and magnitude of the relationship between two sets of variables. It illustrates how two variables move in relation to each other and quantifies the degree of association between them. The Pearson correlation coefficient is used to explain the relationship, with its value ranging from -1 to +1. A correlation coefficient of exactly -1 indicates a perfect negative correlation, signifying that the variables move precisely in opposite directions. Conversely, a correlation coefficient of +1 denotes a perfect positive relationship between the variables.

Multiple Regression Analysis

The regression models utilized in this study aim to analyze the relationship between corporate dividend payout determinants, i.e., explanatory variables. The relationship between dependent and independent variables is expressed in the form of a multiple regression model.

Mode 1

$$ROE = \beta_0 + \beta_1 \times AQ + \beta_2 \times CrDR + \beta_3 \times CDR + \beta_4 \times L + e$$

Where,

ROE= Return On Equity

AQ= Assets Quality

CrDR= Credit Deposit Ratio

CDR= Cash deposit ratio

L= Leverage

3.6 Variable Specification

For the convenient presentation of the research, the variables are abbreviated as follows. This can be shown in the following table.

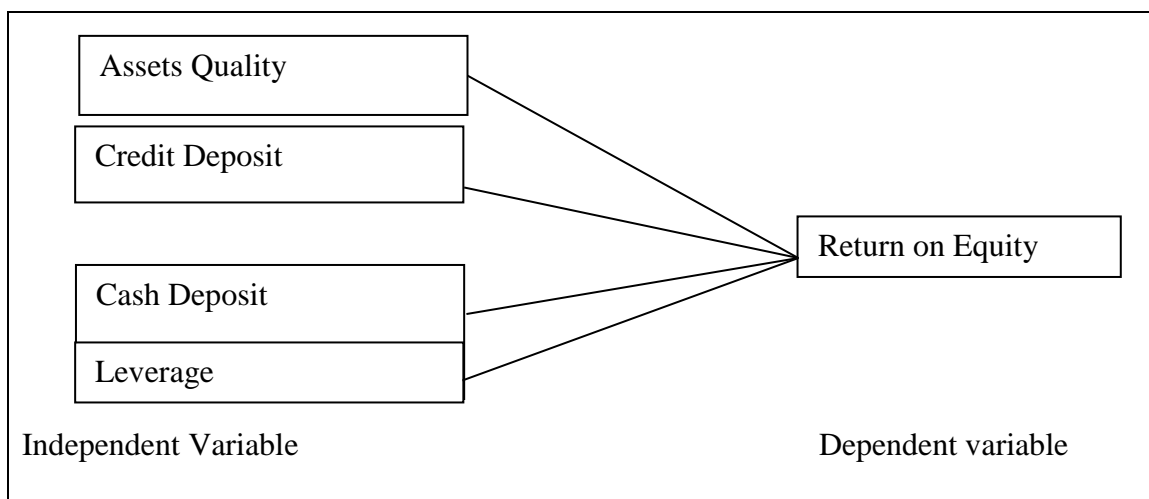
Table 3

Variables, Measure and Abbreviations

Variables	Measure	Abbreviation
1. Return On Equity	Profit after tax/ Equity	ROE
2. Assets Quality	Nonperforming loan/ Total Loan and advance	AQ
3. Credit Deposit Ratio	Loan and advance/ Total deposits	CrDR
4. Cash deposit ratio	Cash and Bank Balance / Total Deposit	CDR
5. Leverage	Equity/ Total Assets	L

3.7 Research Framework

The research framework is the main part of the research. The framework shows the clear vision of the research. The independent and dependent variables of the research are presented in the figure is called research framework. In other word the research is not out of the given variables so the framework has importance. Following figure shows the framework of the research.



Source: *Shrestha & Chaurasiya (2023)*

Figure 1: Conceptual Framework

3.8 Definition of the Variables

Assets Quality

Assets quality (A) is an indicator that assesses the existing credit risk associated with a bank's loan and investment portfolio. It gauges the quality of institutional loans, reflecting the institution's earnings. Evaluating assets quality involves rating investment risk factors the company might encounter and comparing them to its capital earnings. Examiners also scrutinize how the fair market value of investments affects companies when juxtaposed with the book value and investments. The efficiency of an institution's investment policies and practices is a key determinant of assets quality. Since a substantial portion of a bank's income is derived from lending activities, the quality of assets, particularly loan assets and investments, relies heavily on the institution's risk management system. Various measures can be used to signify the quality of assets held by banks. An upward trend in the ratio of non-performing loans to total loans indicates a deterioration in the quality of credit portfolios and, consequently, in financial institutions' cash flow and net income. Additional information on non-performing loans net of provisions and the ratio of provision plus net suspension on impaired loans to total loans can be useful, especially if impaired loans have not yet been classified as non-performing (Kolb & Rodriguez, 1996).

Credit Deposit Ratio

The Credit-Deposit Ratio is the proportion of loan assets created by a bank from the deposits it has received. Credits refer to the loans and advances granted by the bank, representing the amount lent to individuals or organizations, which is later recovered with interest. Deposits, on the other hand, are the funds accepted by the bank from savers, and interest is paid to them (Singh & Tandon, 2012). The Credit-Deposit Ratio is calculated as the total advances divided by the total deposits.

Cash Deposit Ratio

The Cash-Deposit Ratio is a measure of how much a bank lends out of the deposits it has mobilized. It indicates the extent to which a bank's core funds are being utilized for lending, which is a primary banking activity (Goel & Kumar, 2016).

Leverage

Leverage serves as a risk measurement tool for financial analysis, assessing financial, operating, and investment-related risks for a company. A leverage ratio examines how much capital comes in the form of debt, evaluating a company's ability to meet its financial obligations. Leverage ratios are crucial because companies typically rely on a combination of equity and debt to finance their operations, and understanding the amount of debt held by a company helps evaluate its ability to repay debts as they mature (<https://www.investopedia.com>).

Profitability

Profitability is determined by a bank's ability to generate sufficient earnings or reduce operational costs, indicating efficiency. It is measured by ratios such as the firm's return on assets (ROA), return on equity (ROE), and net interest margin (NIM), which summarize large amounts of financial data to make qualitative judgments about the firm's profitability (Velnampy & Niresh, 2012). ROA is a ratio of income to total assets, indicating the efficiency of a company's management in generating net income from all the institution's resources (Khrawish, 2011). Bank profitability is influenced by both internal and external factors. Internal factors, specific to each bank, include capital size, deposit liabilities size, credit portfolio size and composition, interest rate policy, labor productivity, information technology state, risk level, management quality, bank size, ownership, and more (Ongore & Kusa, 2013).

CHAPTER-IV

RESULT AND DISCUSSION

This chapter is the main part of the report. Here researcher done his analysis work and found the solution of the problem based on objectives of the research. The first part of the research is result where as per the objectives the analysis is conducted they are descriptive statistics analysis, correlation analysis and regression analysis. The second part of the research is related to the discussion of the result. The discussion included the comparative study of the finding between the current research and previous research.

4.1 Result

4.1.1 Descriptive Statistics Analysis

The research is related to the comparative study of the liquidity and profitability of the commercial bank in Nepal. To meet the objective one of the research, the descriptive statistics analysis is conducted. The descriptive statistics analysis is conducted for each selected sample bank because of the comparative study. The table below the minimum, maximum, mean and standard deviation of the research variables are calculated.

Table 4

Descriptive Statistics of the NBL

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Equity	10	7.57	42.90	16.02	10.61
Assets Quality Ratio	10	.02	.04	.02	.008
Credit Deposit Ratio	10	.55	.90	.733	.120
Cash Deposit Ratio	10	.03	.16	.06	.039
Leverage	10	.03	.27	.12	.078
Valid N (listwise)	10				

a. bank name = Nepal Bank Limited

Source: *Appendix*

Table 4 shows the descriptive statistics of the Nepal bank limited. The independent variables of the research are Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage. The dependent variables of the research are return on equity. The total observation are 10 because of the ten year data are taken for the study. Here minimum, maximum, mean and standard deviation are calculated. The minimum, maximum, mean and standard deviation of the return on equity are 7.57, 42.90, 16.02 and 10.61 respectively. The minimum,

maximum, mean and standard deviation of the Assets Quality Ratio are 0.02, 0.04, 0.02 and 0.008 respectively. The minimum, maximum, mean and standard deviation of the Credit Deposit Ratio are 0.55 0.90, .733 and 0.120 respectively. The minimum, maximum, mean and standard deviation of the Cash Deposit Ratio are 0.03, 0.16, 0.06 and 0.039 respectively. The minimum, maximum, mean and standard deviation of the Leverage are 0.03, 0.27, 0.12 and 0.078 respectively. The minimum, maximum mean and standard deviation of the Nepal bank limited shows that the current status of the research variables has very low level of fluctuation because the standard deviation is very low.

Table 5

Descriptive Statistics of the NABIL

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Equity	10	8.03	33.10	20.78	7.93
Assets Quality Ratio	10	.00	.02	.011	.005
Credit Deposit Ratio	10	.63	.96	.78	.102
Cash Deposit Ratio	10	.06	.14	.09	.027
Leverage	10	.08	.12	.10	.014
Valid N (listwise)	10				

a. bank name = Nabil Bank Limited

Source: *Appendix*

Table 5 shows the descriptive statistics of the Nabail bank limited. The independent variables of the research are Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage. The dependent variables of the research are return on equity. The total observation are 10 because of the ten year data are taken for the study. Here minimum, maximum, mean and standard deviation are calculated. The minimum, maximum, mean and standard deviation of the return on equity are 8.03, 33.10, 20.78 and 7.93 respectively. The minimum, maximum, mean and standard deviation of the Assets Quality Ratio are 0.00, 0.02, 0.011 and 0.005 respectively. The minimum, maximum, mean and standard deviation of the Credit Deposit Ratio are 0.63,0.96, 0.78 and 0.102 respectively. The minimum, maximum, mean and standard deviation of the Cash Deposit Ratio are 0.06, 0.14, 0.09 and 0.027 respectively. The minimum, maximum, mean and standard deviation of the Leverage are .08, 0.12, 0.10 and .014 respectively. The minimum, maximum mean and standard deviation of the Nabil bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high.

Table 6

Descriptive Statistics of the HBL

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Equity	10	10.70	26.90	16.4	4.3
Assets Quality Ratio	10	.00	.03	.01	.009
Credit Deposit Ratio	10	.70	.93	.82	.084
Cash Deposit Ratio	10	.06	.20	.11	.043
Leverage	10	.07	.12	.09	.018
Valid N (listwise)	10				

a. bank name = Himalayan Bank Limited

Source: *Appendix*

Table 6 shows the descriptive statistics of the Himalayan bank limited. The independent variables of the research are Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage. The dependent variables of the research are return on equity. The total observation are 10 because of the ten year data are taken for the study. Here minimum, maximum, mean and standard deviation are calculated. The minimum, maximum, mean and standard deviation of the return on equity are 10.70, 26.90, 16.4 and 4.3 respectively. The minimum, maximum, mean and standard deviation of the Assets Quality Ratio are .00, .03, 0.01 and 0.009 respectively. The minimum, maximum, mean and standard deviation of the Credit Deposit Ratio are .70, .93, .82 and .084 respectively. The minimum, maximum, mean and standard deviation of the Cash Deposit Ratio are .06, .20, .11 and .043 respectively. The minimum, maximum, mean and standard deviation of the Leverage are .07, .12, .09 and .018 respectively. The minimum, maximum mean and standard deviation of the Himalayan bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high.

4.1.2 Correlation Analysis

Correlation analysis is a statistical tool employed to ascertain the direction and magnitude of the relationship between two sets of variables. It illustrates how two variables move in relation to each other and quantifies the degree of association between them. The Pearson correlation coefficient is used to explain the relationship, with its value ranging from -1 to +1. Because of the comparative study the correlation is calculated each selected bank. This correlation calculation help to meet the objective two related to the relationship between liquidity and profitability.

Table 7

Correlation of the Variables in NBL

			Return on Equity	Assets Quality Ratio	Credit Deposit Ratio	Cash Deposit Ratio	Levera ge
Return Equity	on	Pearson Correlation Sig. (2-tailed) N	1 10				
Assets Ratio	Quality	Pearson Correlation Sig. (2-tailed) N	.449 .193 10	1 10			
Credit Ratio	Deposit	Pearson Correlation Sig. (2-tailed) N	-.463 .178 10	-.405 .246 10	1 10		
Cash Ratio	Deposit	Pearson Correlation Sig. (2-tailed) N	.825** .003 10	.126 .728 10	-.503 .138 10	1 10	
Leverage		Pearson Correlation Sig. (2-tailed) N	-.498 .143 10	-.157 .666 10	.840** .002 10	-.579 .080 10	1 10

** . Correlation is significant at the 0.01 level (2-tailed).

a. bank name = Nepal Bank Limited

Source: Appendix

Table 7 of the research is related to the correlation of the Nepal bank limited. The research has a correlation calculated because of the meeting the objective of relationship between the independent and dependent variables. The independent variables of the research are Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage. The dependent variables of the research are return on equity. The total observation are 10 because of the ten year data are taken for the study.

The relationship between the assets quality ratio and return on equity is positive and not significant so that the hypothesis is called not true. The correlation measurement positive by 0.449 and significant value is by 0.193 which is more than 0.05, called insignificant.

The relationship between the Credit Deposit Ratio and return on equity is negative and not significant so that the hypothesis is called not true. The correlation measurement negative by 0.463 and significant value is by 0.178 which is more than 0.05, called insignificant.

The relationship between the Cash Deposit Ratio and return on equity is positive and significant so that the hypothesis is called true. The correlation measurement positive by 0.825 and significant value is by 0.003 which is less than 0.05, called significant.

The relationship between the Leverage and return on equity is negative and not significant so that the hypothesis is called not true. The correlation measurement negative by 0.498 and significant value is by 0.143 which is more than 0.05, called insignificant.

Table 8

Correlation of the Variables in NABIL

			Return on Equity	Assets Quality Ratio	Credit Deposit Ratio	Cash Deposit Ratio	Levera ge
Return Equity	on	Pearson Correlation	1				
		Sig. (2-tailed)					
		N	10				
Assets Ratio	Quality	Pearson Correlation	.575	1			
		Sig. (2-tailed)	.082				
		N	10	10			
Credit Ratio	Deposit	Pearson Correlation	-.752*	-.335	1		
		Sig. (2-tailed)	.012	.344			
		N	10	10	10		
Cash Ratio	Deposit	Pearson Correlation	.133	.028	-.477	1	
		Sig. (2-tailed)	.714	.938	.164		
		N	10	10	10	10	
Leverage		Pearson Correlation	-.711*	-.657*	.881**	-.379	1
		Sig. (2-tailed)	.021	.039	.001	.281	
		N	10	10	10	10	10

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

a. bank name = Nabil Bank Limited

Source: *Appendix*

Table 9 of the research is related to the correlation of the NABIL bank limited. The research has a correlation calculated because of the meeting the objective of relationship between the independent and dependent variables. The independent variables of the research are Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage. The dependent variables of the research are return on equity. The total observation are 10 because of the ten year data are taken for the study.

The relationship between the assets quality ratio and return on equity is positive and not significant so that the hypothesis is called not true. The correlation measurement positive by 0.575 and significant value is by 0.082 which is more than 0.05, called insignificant.

The relationship between the Credit Deposit Ratio and return on equity is negative and significant so that the hypothesis is called true. The correlation measurement negative by 0.752 and significant value is by 0.012 which is more less 0.05, called significant.

The relationship between the Cash Deposit Ratio and return on equity is positive and not significant so that the hypothesis is called not true. The correlation measurement positive by 0.133 and significant value is by 0.714 which is more than 0.05, called not significant.

The relationship between the Leverage and return on equity is negative and significant so that the hypothesis is called true. The correlation measurement negative by 0.711 and significant value is by 0.021 which is more than 0.05, called significant.

Table 9

Correlation of the Variables in HBL

			Return on Equity	Assets Quality Ratio	Credit Deposit Ratio	Cash Deposit Ratio	Levera ge
Return Equity	on	Pearson Correlation	1				
		Sig. (2-tailed)					
		N	10				
Assets Ratio	Quality	Pearson Correlation	.092	1			
		Sig. (2-tailed)	.801				
		N	10	10			
Credit Ratio	Deposit	Pearson Correlation	-.416	-.796**	1		
		Sig. (2-tailed)	.232	.006			
		N	10	10	10		
Cash Ratio	Deposit	Pearson Correlation	-.375	-.338	.637*	1	
		Sig. (2-tailed)	.286	.340	.048		
		N	10	10	10	10	
Leverage		Pearson Correlation	-.501	-.584	.789**	.728*	1
		Sig. (2-tailed)	.140	.076	.007	.017	
		N	10	10	10	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

a. bank name = Himalayan Bank Limited

Source: *Appendix*

Table 8 of the research is related to the correlation of the Himalayan Bank Limited. The research has a correlation calculated because of the meeting the objective of relationship between the independent and dependent variables. The independent variables of the research are Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage. The dependent variables of the research are return on equity. The total observation are 10 because of the ten year data are taken for the study.

The relationship between the assets quality ratio and return on equity is positive and not significant so that the hypothesis is called not true. The correlation measurement positive by 0.092 and significant value is by 0.801 which is more than 0.05, called insignificant.

The relationship between the Credit Deposit Ratio and return on equity is negative and not significant so that the hypothesis is called not true. The correlation measurement negative by 0.416 and significant value is by 0.323 which is more than 0.05, called insignificant.

The relationship between the Cash Deposit Ratio and return on equity is negative and not significant so that the hypothesis is called not true. The correlation measurement negative by 0.825 and significant value is by 0.286 which is more than 0.05, called not significant.

The relationship between the Leverage and return on equity is negative and not significant so that the hypothesis is called not true. The correlation measurement negative by 0.501 and significant value is by 0.14 which is more than 0.05, called insignificant.

4.1.3 Multiple Regression Analysis

The regression models utilized in this study aim to analyze the relationship between corporate dividend payout determinants, i.e., explanatory variables. The relationship between dependent and independent variables is expressed in the form of a multiple regression model. For achievement of objective three called the impact of liquidity to the profitability of a bank multiple regression is analysis. The study is based on comparative with the selected bank so the each bank has model summary, ANOVA and coefficient is calculated here under.

Table 10

Model Summary of the NBL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.906 ^b	.821	.677	6.028

a. bank name = Nepal Bank Limited

b. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

Source: *Appendix*

Table 10 shows the model summary of the Nepal bank limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the Nepal bank is 10 because the data are calculated of 10 years. Here the R square is 0.821 which represent the total independent variables impacted to the dependent variables cumulatively be 82.1% and remaining 17.9% is impacted by other variables which are not included in this research.

Table 11

ANOVA of the NBL

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	832.232	4	208.058	5.725	.041 ^c
	Residual	181.711	5	36.342		
	Total	1013.944	9			

a. bank name = Nepal Bank Limited

b. Dependent Variable: Return on Equity

c. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

Source: *Appendix*

Table 11 shows the model summary of the Nepal bank limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the Nepal bank is 10 because the data are calculated of 10 years. The regression value is significant which show in the table by the value of 0.041 so the regression is strong in the bank.

Table 12
Coefficient of NBL

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-29.332	26.924		-1.089	.326
	Assets Quality Ratio	560.656	287.420	.435	1.951	.109
	Credit Deposit Ratio	26.326	35.780	.299	.736	.495
	Cash Deposit Ratio	212.208	62.346	.791	3.404	.019
	Leverage	-30.210	53.644	-.223	-.563	.598

a. bank name = Nepal Bank Limited

b. Dependent Variable: Return on Equity

Source: *Appendix*

Table 12 shows the coefficient of the Nepal bank limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the Nepal bank is 10 because the data are calculated of 10 years. The result is based on the regression model $ROE = \beta_0 + \beta_1 \times AQ + \beta_2 \times CrDR + \beta_3 \times CDR + \beta_4 \times L + e$.

The impact of the assets quality ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The beta value is positive 560.6 shows the 1% change in the assets quality ratio then change in to the return on equity by 560.6% and which is less accurate because the standard error is higher i.e. 287.42. Significant value is 0.109 which is more than 0.05 so the impact is not significant.

The impact of the Credit Deposit Ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The beta value is positive 26.326 shows the 1% change in the Credit Deposit Ratio then change in to the return on equity by 26.326% and which is less accurate because the standard error is higher i.e. 25.78. Significant value is 0.495 which is more than 0.05 so the impact is not significant.

The impact of the Cash Deposit Ratio to the return on equity is positive and the impact is significant, also the hypothesis is true. The beta value is positive 212.2 shows the 1% change in the Credit Deposit Ratio then change in to the return on equity by 212.2% and which is less

accurate because the standard error is higher i.e. 62.346. Significant value is 0.019 which is less than 0.05 so the impact is significant.

The impact of the Leverage to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The beta value is negative 30.1 shows the 1% change in the Leverage then change in to the return on equity by negative 30.1% and which is less accurate because the standard error is higher i.e. 53.6. Significant value is 0.598 which is more than 0.05 so the impact is not significant.

Table 13

Model Summary of the NABIL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.899 ^b	.809	.656	4.65

a. bank name = Nabil Bank Limited

b. Predictors: (Constant), Leverage, Cash Deposit Ratio, Assets Quality Ratio, Credit Deposit Ratio

Source: *Appendix*

Table 13 shows the model summary of the Nabil Bank Limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the Nabil Bank Limited is 10 because the data are calculated of 10 years. Here the R square is 0.809 which represent the total independent variables impacted to the dependent variables cumulatively be 80.9% and remaining 19.1% is impacted by other variables which are not included in this research.

Table 14

ANOVA of the NABIL

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	458.891	4	114.723	5.296	.048 ^c
	Residual	108.319	5	21.664		
	Total	567.210	9			

a. bank name = Nabil Bank Limited

b. Dependent Variable: Return on Equity

c. Predictors: (Constant), Leverage, Cash Deposit Ratio, Assets Quality Ratio, Credit Deposit Ratio

Source: *Appendix*

Table 14 shows the model summary of the NABIL bank limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the NABIL bank is 10 because the data are calculated of 10 years. The regression value is significant which show in the table by the value of 0.048 so the regression is strong in the bank.

Table 15

Coefficient of NABIL

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	52.130	22.549		2.312	.069
	Assets Quality Ratio	1065.404	501.306	.762	2.125	.087
	Credit Deposit Ratio	-118.807	44.573	-1.531	-2.665	.045
	Cash Deposit Ratio	-62.927	64.912	-.219	-.969	.377
	Leverage	562.385	377.759	1.056	1.489	.197

a. bank name = Nabil Bank Limited

b. Dependent Variable: Return on Equity

Source: *Appendix*

Table 15 shows the coefficient of the NABIL bank limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the NABIL

bank is 10 because the data are calculated of 10 years. The result is based on the regression model $ROE = \beta_0 + \beta_1 \times AQ + \beta_2 \times CrDR + \beta_3 \times CDR + \beta_4 \times L + e$.

The impact of the assets quality ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The beta value is positive 1065.4 shows the 1% change in the assets quality ratio then change in to the return on equity by 1065.4% and which is less accurate because the standard error is higher i.e. 501.306. Significant value is 0.087 which is more than 0.05 so the impact is not significant.

The impact of the Credit Deposit Ratio to the return on equity is negative and the impact is significant, also the hypothesis is true. The beta value is negative 118.8 shows the 1% change in the Credit Deposit Ratio then change in to the return on equity by negative 118.8 % and which is less accurate because the standard error is higher i.e. 44.57. Significant value is 0.045 which is less than 0.05 so the impact is significant.

The impact of the Cash Deposit Ratio to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The beta value is negative 62.92 shows the 1% change in the Credit Deposit Ratio then change in to the return on equity by negative 62.92% and which is less accurate because the standard error is higher i.e. 64.91. Significant value is 0.377 which is more than 0.05 so the impact is not significant.

The impact of the Leverage to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The beta value is positive 562.385 shows the 1% change in the Leverage then change in to the return on equity by 562.385% and which is less accurate because the standard error is higher i.e. 377.759. Significant value is 0.197 which is more than 0.05 so the impact is not significant.

Table 16

Model Summary of the HBL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.634 ^b	.402	-.077	4.46

a. bank name = Himalayan Bank Limited

b. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

Source: *Appendix*

Table 16 shows the model summary of the Himalayan Bank Limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the Himalayan Bank Limited is 10 because the data are calculated of 10 years. Here the R square is 0.402 which represent the total independent variables impacted to the dependent variables cumulatively be 40.2% and remaining 59.8% is impacted by other variables which are not included in this research.

Table 17

ANOVA of the HBL

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.008	4	16.752	.839	.555 ^c
	Residual	99.813	5	19.963		
	Total	166.821	9			

a. bank name = Himalayan Bank Limited

b. Dependent Variable: Return on Equity

c. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

Source: *Appendix*

Table 17 shows the model summary of the HBL bank limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the HBL bank is 10 because the data are calculated of 10 years. The regression value is not significant which show in the table by the value of 0.555 because which less than 0.05 is.

Table 18
Coefficient of HBL

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	58.027	30.763		1.886	.118
	Assets Quality Ratio	-297.699	266.221	-.688	-1.118	.314
	Credit Deposit Ratio	-35.724	41.449	-.699	-.862	.428
	Cash Deposit Ratio	19.871	54.165	.200	.367	.729
	Leverage	-114.226	147.445	-.497	-.775	.474

a. bank name = Himalayan Bank Limited

b. Dependent Variable: Return on Equity

Source: *Appendix*

Table 18 shows the coefficient of the Himalayan bank limited. The Predictors called independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variables of the research are return on equity. The total observation of the Himalayan bank is 10 because the data are calculated of 10 years. The result is based on the regression model $ROE = \beta_0 + \beta_1 \times AQ + \beta_2 \times CrDR + \beta_3 \times CDR + \beta_4 \times L + e$.

The impact of the assets quality ratio to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The beta value is negative 297.699 shows the 1% change in the assets quality ratio then change in to the return on equity by negative 297.699% and which is less accurate because the standard error is higher i.e. 266.221. Significant value is 0.314 which is more than 0.05 so the impact is not significant.

The impact of the Credit Deposit Ratio to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The beta value is negative 35.724 shows the 1% change in the Credit Deposit Ratio then change in to the return on equity by negative 35.724% and which is less accurate because the standard error is higher i.e. 41.449. Significant value is 0.428 which is more than 0.05 so the impact is not significant.

The impact of the Cash Deposit Ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The beta value is positive 19.871 shows the 1% change in the Credit Deposit Ratio then change in to the return on equity by 19.871% and

which is less accurate because the standard error is higher i.e. 54.165. Significant value is 0.729 which is more than 0.05 so the impact is not significant.

The impact of the Leverage to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The beta value is negative 114.226 shows the 1% change in the Leverage then change in to the return on equity by negative 114.226% and which is less accurate because the standard error is higher i.e. 147.445. Significant value is 0.474 which is more than 0.05 so the impact is not significant.

4.2 Discussion

The first objectives of research is to examine the current status of liquidity and profitability of the selected commercial bank in Nepal. It is found that the Nepal bank limited shows that the current status of the research variables has very low level of fluctuation because the standard deviation is very low. The result is consistence with the result of (Hustan, 2017). The Nabil bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high and the Himalayan bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high. The result is consistence with the result of (Atabaeva et al., 2022).

The second objective of research is to analyze the relationship between liquidity and profitability of the selected commercial bank in Nepal. It is found that in the Nepal bank limited the relationship between the assets quality ratio and return on equity is positive and not significant so that the hypothesis is called not true. The result is consistence with the result of (Paul et al., 2020). The relationship between the Credit Deposit Ratio and return on equity is negative and not significant so that the hypothesis is called not true. The relationship between the Cash Deposit Ratio and return on equity is positive and significant so that the hypothesis is called true. The result is consistence with the result of (Alshatti, 2014). The relationship between the Leverage and return on equity is negative and not significant so that the hypothesis is called not true. In the NABIL bank the relationship between the assets quality ratio and return on equity is positive and not significant so that the hypothesis is called not true. The result is consistence with the result of (Karki, 2018). The relationship between the Credit Deposit Ratio and return on equity is negative and significant so that the hypothesis is called true. The result is consistence with the result of (Pokhrel, 2018). The relationship between the Cash Deposit Ratio and return on equity is positive and not significant so that the

hypothesis is called not true. The result is not consistent with the result of (Shrestha & Chaurasiya, 2023). The relationship between the Leverage and return on equity is negative and significant so that the hypothesis is called true. The result is consistent with the result of (Atabaeva et al., 2022). In the Himalayan bank limited the relationship between the assets quality ratio and return on equity is positive and not significant so that the hypothesis is called not true. The result is consistent with the result of (Shrestha, 2016). The relationship between the Credit Deposit Ratio and return on equity is negative and not significant so that the hypothesis is called not true. The result is not consistent with the result of (Hasmiana et al., 2022). The relationship between the Cash Deposit Ratio and return on equity is negative and not significant so that the hypothesis is called not true. The result is consistent with the result of (Olaleye et al., 2021). The relationship between the Leverage and return on equity is negative and not significant so that the hypothesis is called not true. The result is consistent with the result of (Khatai, 2020).

The third objective of research is to examine the impact of the liquidity toward profitability of the selected commercial bank in Nepal. It is found that, in the Nepal bank limited the impact of the assets quality ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The result is consistent with the result of (Abbas et al., 2019). The impact of the Credit Deposit Ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The result is consistent with the result of (Dhungana, 2014). The impact of the Cash Deposit Ratio to the return on equity is positive and the impact is significant, also the hypothesis is true. The result is consistent with the result of (Ojha, 2018). The impact of the Leverage to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The result is consistent with the result of (Malla, 2015). In the NABIL bank the impact of the assets quality ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The impact of the Credit Deposit Ratio to the return on equity is negative and the impact is significant, also the hypothesis is true. The result is consistent with the result of (Olaleye et al., 2021).

The impact of the Cash Deposit Ratio to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The impact of the Leverage to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The result is not consistent with the result of (Hasmiana et al., 2022). In the Himalayan bank the impact of

the assets quality ratio to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The result is consistence with the result of (Atabaeva et al., 2022). The impact of the Credit Deposit Ratio to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The result is consistence with the result of (Paul et al., 2020).The impact of the Cash Deposit Ratio to the return on equity is positive and the impact is not significant, also the hypothesis is not true. The result is not consistence with the result of (Paul et al., 2020).The impact of the Leverage to the return on equity is negative and the impact is not significant, also the hypothesis is not true. The result is consistence with the result of (Alshatti, 2014).

CHAPTER-V

SUMMARY AND CONCLUSION

Summary and conclusion is the last chapter of the MBS dissertation provided by the TU guideline. In this chapter summary conclusion and implication is included. The summary is the detail of the research from beginning to the ending. Conclusion is the objective based finding and in short completed inclusion explanation and implication explain the detail of the uses of the research in the future.

5.1 Summary

Liquidity, defined as the availability of cash for day-to-day operations, is crucial for both internal and external analysts due to its close association with business operations. Effective liquidity management is vital for the survival of a business, requiring a careful balance between excessive and inadequate liquidity. In the commercial banking sector, liquidity represents the ability to fulfill obligations at maturity, encompassing lending and investment commitments, withdrawals, deposits, and accrued liabilities. Bank profitability, defined as the ability to generate revenue exceeding costs relative to the bank's capital base, contributes to the stability of the financial system. Presently, Nepal is grappling with liquidity issues at both the banking and national levels, impacting various sectors. This research is timely given the current liquidity problems, especially considering the financial crisis leading to the closure of loans by banks. The rationale for conducting research on liquidity and profitability is crucial at this juncture for enhancing organizational profits, which remains a primary objective for every company. On the basis of the given causes the research is conducted on “A Comparative Study of Liquidity and Profitability Analysis of Nepalese Commercial Banks”.

The objectives of research are to examine the current status of liquidity and profitability of the selected commercial bank in Nepal, to analyze the relationship between liquidity and profitability of the selected commercial bank in Nepal and to examine the impact of the liquidity toward profitability of the selected commercial bank in Nepal. The objective are maintain because of the problem in the field. The problem of the research are; what are the current status of liquidity and profitability of the selected commercial bank in Nepal? What is the relationship between liquidity and profitability of the selected commercial bank in Nepal? Whether there is any impact of the liquidity toward profitability of the selected commercial

bank in Nepal? The descriptive and casual comparative research design is used for the research. The secondary source of data are used and they are collected from the selected three sample bank out of twenty commercial bank in Nepal. The article and journal are reviewed from the google scholar and other site of the published source. Financial and statistical analysis are conducted. The financial analysis is done through different ratio and statistical analysis from the descriptive statistics, correlation and multiple regression analysis are used to analysis the data. The SPSS and Excel are the tools of analysis. The finding of the research is that Nepal bank limited shows that the current status of the research variables has very low level of fluctuation because the standard deviation is very low. The Nabil bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high and the Himalayan bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high. The relationship between cash deposit ratio and return on equity is significant in the NBL. The assets quality, credit deposit and leverage has not significant to the return on equity in the NBL. The relationship between credit deposit ratio and leverage and return on equity is significant in the NABIL. The assets quality and cash deposit has not significant to the return on equity in the NABIL. The relationship of Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage to the return on equity is not significant in the HBL. The impact of cash deposit ratio to the return on equity is significant in the NBL. The assets quality, credit deposit and leverage has not significant impact to the return on equity in the NBL. The impact credit deposit ratio to the return on equity is significant in the NABIL. The impact of assets quality, cash deposit and leverage has not significant to the return on equity in the NABIL. The impact of Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage has not significant impact to the return on equity in the HBL.

5.2 Conclusion

The first objectives of research is to examine the current status of liquidity and profitability of the selected commercial bank in Nepal. It is found that the Nepal bank limited shows that the current status of the research variables has very low level of fluctuation because the standard deviation is very low. The Nabil bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high and the Himalayan bank limited shows that the current status of the research variables has fluctuation because the standard deviation is high. In conclusion the current status of the research variables:

independent variables are Leverage, Assets Quality Ratio, Cash Deposit Ratio and Credit Deposit Ratio and dependent variable return on equity are fluctuating nature.

The second objective of research is to analyze the relationship between liquidity and profitability of the selected commercial bank in Nepal. It is found that the relationship between cash deposit ratio and return on equity is significant in the NBL. The assets quality, credit deposit and leverage has not significant to the return on equity in the NBL. The relationship between credit deposit ratio and leverage and return on equity is significant in the NABIL. The assets quality and cash deposit has not significant to the return on equity in the NABIL. The relationship of Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage to the return on equity is not significant in the HBL. In conclusion the cash deposit, credit deposit and leverage has significant impact to the profitability in the commercial bank in Nepal.

The third objective of research is to examine the impact of the liquidity toward profitability of the selected commercial bank in Nepal. It is found that, the impact of cash deposit ratio to the return on equity is significant in the NBL. The assets quality, credit deposit and leverage has not significant impact to the return on equity in the NBL. The impact credit deposit ratio to the return on equity is significant in the NABIL. The impact of assets quality, cash deposit and leverage has not significant to the return on equity in the NABIL. The impact of Assets Quality Ratio, Credit Deposit Ratio, Cash Deposit Ratio and Leverage has not significant impact to the return on equity in the HBL. In conclusion the impact of cash deposit and cash deposit has significant impact in the commercial bank in Nepal.

5.3 Implications

Effective liquidity management is essential for the smooth functioning of an organization's daily operations, forming the cornerstone of its operational foundation. A well-designed liquidity management system is crucial for maintaining an optimal liquidity level that aligns precisely with the organization's needs. Striking the right balance is key, as excess liquidity can lead to resource utilization inefficiencies, while inadequate liquidity may pose risks, potentially resulting in business closures.

In the current context of Nepal, liquidity challenges are prevalent at both the banking and national levels, causing disruptions across various sectors. Given the existing liquidity issues, this research holds significance and timeliness. The banking sector, in particular, has experienced loan closures due to a financial crisis rooted in liquidity challenges. The rationale

for conducting this research lies in its potential contribution to enhancing organizational profitability, as profit remains a primary objective for every company. Profitability is a defining characteristic of successful companies, and banks, being profit-oriented entities, underscore the vital role of liquidity in achieving success. Therefore, exploring the intricate relationship between liquidity and profitability is crucial for assessing success in terms of profitability, making this investigation particularly pertinent in the current circumstances. The following are the implication of this research.

- To the government and authorities to make liquidity stable in the nation is useful.
- To the selected bank for solving their liquidity and profitability of related weakness and know from the strength.
- To the other bank for their banking liquidity management and profitability improvement.
- To the community for understanding the current status of the banking liquidity position and profitability.
- To the banker for betterment to their organization.
- To the profit making firm for making warm profit from the liquidity management.
- The learner for reference and understanding to their research and day to day propose.

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APPENDIX

1. Nepal bank limited

Rs in Million

Year	Net Profit	Total Assets	Equity	Non-performing loan	Loan and Advance	Total Deposit	Cash and Bank Balance
2022	3856	260077	35463	4356	177639	196076	6391
2021	4572	122645	33215	4572	141958	162813	6528
2020	2332	191162	30030	2332	106824	141530	4971
2019	2596	171515	29281	2596	95724	117200	10418
2018	3215	133467	22971	3215	78295	99540	5780
2017	1747	130226	23074	1747	73185	93708	5489
2016	2882	103479	6713	1978	61250	89410	14388
2015	483	88211	3831	1226	50970	77998	8004
2014	716	77980	3348	1265	39035	69337	5555
2013	533	66853	2543	1453	35621	63650	4865

2. Nabil Bank Limited

Year	Net Profit	Total Assets	Equity	Non-performing loan	Loan and Advance	Total Deposit	Cash and Bank Balance
2022	4256	419818	52981	4250	310571	323222	24088
2021	4527	291066	33858	3980	206622	223474	15309
2020	3463	237680	25855	1889	153890	190806	24820
2019	4238	201138	23188	1778	133558	162953	18671
2018	3981	169076	20586	1098	113624	134810	14091
2017	3702	140697	14137	976	89877	118624	11084
2016	2823	127619	11636	889	76106	110210	7466
2015	2098	118696	9518	1220	65501	103957	14804
2014	2331	90293	7670	1256	54684	75360	8536
2013	2226	73343	6709	1015	46369	63506	5929

Rs in Million

3. Himalayan bank Limited

Rs in Million

Year	Net Profit	Total Assets	Equity	Non-performing loan	Loan and Advance	Total Deposit	Cash and Bank Balance
2022	2367	216286	22010	752	154972	168419	18524
2021	2998	178490	20132	634	132093	141021	20225
2020	2586	155884	17589	1077	106726	125264	25980
2019	2763	133151	15994	1091	97469	109387	14768
2018	1875	116462	14138	1206	86159	98988	14889
2017	2281	108063	12328	641	75383	92881	8914
2016	1935	99863	7175	851	67745	87335	7175
2015	1112	82801	7222	1783	53476	73538	7222
2014	959	73589	6082	911	45320	64674	4878
2013	943	61113	5299	1186	39723	53072	3292

Calculated from SPSS

4. Return on Assets (ROA)

Year	NBL	NABIL	HBL
2022	1.483	1.014	1.094
2021	3.728	1.555	1.68
2020	1.22	1.457	1.659
2019	1.514	2.107	2.075
2018	2.409	2.355	1.61
2017	1.342	2.631	2.111
2016	2.785	2.212	1.938
2015	0.548	1.768	1.343
2014	0.918	2.582	1.303
2013	0.797	3.035	1.543

Source: Annual Report

5. Return on Equity (ROE)

Year	NBL	NABIL	HBL
2022	10.873	8.033	10.754
2021	13.765	13.371	14.892
2020	7.766	13.394	14.702
2019	8.866	18.277	17.275
2018	13.996	19.338	13.262
2017	7.571	26.187	18.503
2016	42.932	24.261	26.969
2015	12.608	22.042	15.397
2014	21.386	30.391	15.768
2013	20.959	33.179	17.796

Source: *Annual Report*

6. Nonperforming Loan to Total Loan and Advance (NPLTLA)

Year	NBL	NABIL	HBL
2022	0.025	0.014	0.005
2021	0.032	0.019	0.005
2020	0.022	0.012	0.01
2019	0.027	0.013	0.011
2018	0.041	0.01	0.014
2017	0.024	0.011	0.009
2016	0.032	0.012	0.013
2015	0.024	0.019	0.033
2014	0.032	0.023	0.02
2013	0.041	0.022	0.03

Source: *Annual Report*

7. Cash and Bank to Total Deposit (CBTD)

Year	NBL	NABIL	HBL
2022	0.033	0.075	0.11
2021	0.04	0.069	0.143
2020	0.035	0.13	0.207
2019	0.089	0.115	0.135
2018	0.058	0.105	0.15
2017	0.059	0.093	0.096
2016	0.161	0.068	0.082
2015	0.103	0.142	0.098
2014	0.08	0.113	0.075
2013	0.076	0.093	0.062

Source: *Annual Report*

8. Equity to Total Assets (ETA)

Year	NBL	NABIL	HBL
2022	0.136	0.126	0.102
2021	0.271	0.116	0.113
2020	0.157	0.109	0.113
2019	0.171	0.115	0.12
2018	0.172	0.122	0.121
2017	0.177	0.1	0.114
2016	0.065	0.091	0.072
2015	0.043	0.08	0.087
2014	0.043	0.085	0.083
2013	0.038	0.091	0.087

Source: *Annual Report*

Calculated from SPSS

Descriptive Statistics^a

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Equity	10	7.57	42.90	16.0290	10.61416
Assets Quality Ratio	10	.02	.04	.0270	.00823
Credit Deposit Ratio	10	.55	.90	.7330	.12037
Cash Deposit Ratio	10	.03	.16	.0690	.03957
Leverage	10	.03	.27	.1230	.07846
Valid N (listwise)	10				

a. bank name = Nepal Bank Limited

Descriptive Statistics of the NABIL

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Equity	10	8.03	33.10	20.78	7.93
Assets Quality Ratio	10	.00	.02	.011	.005
Credit Deposit Ratio	10	.63	.96	.78	.102
Cash Deposit Ratio	10	.06	.14	.09	.027
Leverage	10	.08	.12	.10	.014
Valid N (listwise)	10				

a. bank name = Nabil Bank Limited

Descriptive Statistics of the HBL

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Equity	10	10.70	26.90	16.4	4.3
Assets Quality Ratio	10	.00	.03	.01	.009
Credit Deposit Ratio	10	.70	.93	.82	.084
Cash Deposit Ratio	10	.06	.20	.11	.043
Leverage	10	.07	.12	.09	.018
Valid N (listwise)	10				

a. bank name = Himalayan Bank Limited

Correlations^a

			Return on Equity	Assets Quality Ratio	Credit Deposit Ratio	Cash Deposit Ratio	Leverage
Return on Equity	Quality Ratio	Pearson Correlation	1	.449	-.463	.825**	-.498
		Sig. (2-tailed)		.193	.178	.003	.143
		N	10	10	10	10	10
Assets Ratio	Deposit Ratio	Pearson Correlation	.449	1	-.405	.126	-.157
		Sig. (2-tailed)	.193		.246	.728	.666
		N	10	10	10	10	10
Credit Ratio	Cash Ratio	Pearson Correlation	-.463	-.405	1	-.503	.840**
		Sig. (2-tailed)	.178	.246		.138	.002
		N	10	10	10	10	10
Cash Ratio	Leverage	Pearson Correlation	.825**	.126	-.503	1	-.579
		Sig. (2-tailed)	.003	.728	.138		.080
		N	10	10	10	10	10
Leverage		Pearson Correlation	-.498	-.157	.840**	-.579	1
		Sig. (2-tailed)	.143	.666	.002	.080	
		N	10	10	10	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

a. bank name = Nepal Bank Limited

Correlations^a

		Return on Equity	Assets Quality Ratio	Credit Deposit Ratio	Cash Deposit Ratio	Leverage
Return on Equity	Pearson Correlation	1	.575	-.752*	.133	-.711*
	Sig. (2-tailed)		.082	.012	.714	.021
	N	10	10	10	10	10
Assets Quality Ratio	Pearson Correlation	.575	1	-.335	.028	-.657*
	Sig. (2-tailed)	.082		.344	.938	.039
	N	10	10	10	10	10
Credit Deposit Ratio	Pearson Correlation	-.752*	-.335	1	-.477	.881**
	Sig. (2-tailed)	.012	.344		.164	.001
	N	10	10	10	10	10
Cash Deposit Ratio	Pearson Correlation	.133	.028	-.477	1	-.379
	Sig. (2-tailed)	.714	.938	.164		.281
	N	10	10	10	10	10
Leverage	Pearson Correlation	-.711*	-.657*	.881**	-.379	1
	Sig. (2-tailed)	.021	.039	.001	.281	
	N	10	10	10	10	10

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

a. bank name = Nabil Bank Limited

Correlations^a

		Return on Equity	Assets Quality Ratio	Credit Deposit Ratio	Cash Deposit Ratio	Leverage
Return on Equity	Pearson Correlation	1	.092	-.416	-.375	-.501
	Sig. (2-tailed)		.801	.232	.286	.140
	N	10	10	10	10	10
Assets Quality Ratio	Pearson Correlation	.092	1	-.796**	-.338	-.584
	Sig. (2-tailed)	.801		.006	.340	.076
	N	10	10	10	10	10
Credit Deposit Ratio	Pearson Correlation	-.416	-.796**	1	.637*	.789**
	Sig. (2-tailed)	.232	.006		.048	.007
	N	10	10	10	10	10
Cash Deposit Ratio	Pearson Correlation	-.375	-.338	.637*	1	.728*
	Sig. (2-tailed)	.286	.340	.048		.017
	N	10	10	10	10	10
Leverage	Pearson Correlation	-.501	-.584	.789**	.728*	1
	Sig. (2-tailed)	.140	.076	.007	.017	
	N	10	10	10	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

a. bank name = Himalayan Bank Limited

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.906 ^b	.821	.677	6.02845

a. bank name = Nepal Bank Limited

b. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	832.232	4	208.058	5.725	.041 ^c
	Residual	181.711	5	36.342		
	Total	1013.944	9			

a. bank name = Nepal Bank Limited

b. Dependent Variable: Return on Equity

c. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-29.332	26.924		-1.089	.326
	Assets Quality Ratio	560.656	287.420	.435	1.951	.109
	Credit Deposit Ratio	26.326	35.780	.299	.736	.495
	Cash Deposit Ratio	212.208	62.346	.791	3.404	.019
	Leverage	-30.210	53.644	-.223	-.563	.598

a. bank name = Nepal Bank Limited

b. Dependent Variable: Return on Equity

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.899 ^b	.809	.656	4.65444

a. bank name = Nabil Bank Limited

b. Predictors: (Constant), Leverage, Cash Deposit Ratio, Assets Quality Ratio, Credit Deposit Ratio

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	458.891	4	114.723	5.296	.048 ^c
	Residual	108.319	5	21.664		
	Total	567.210	9			

a. bank name = Nabil Bank Limited

b. Dependent Variable: Return on Equity

c. Predictors: (Constant), Leverage, Cash Deposit Ratio, Assets Quality Ratio, Credit Deposit Ratio

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	52.130	22.549		2.312	.069
	Assets Quality Ratio	1065.404	501.306	.762	2.125	.087
	Credit Deposit Ratio	-118.807	44.573	-1.531	-2.665	.045
	Cash Deposit Ratio	-62.927	64.912	-.219	-.969	.377
	Leverage	562.385	377.759	1.056	1.489	.197

a. bank name = Nabil Bank Limited

b. Dependent Variable: Return on Equity

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.634 ^b	.402	-.077	4.46796

a. bank name = Himalayan Bank Limited

b. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

ANOVA^{a,b}

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.008	4	16.752	.839	.555 ^c
	Residual	99.813	5	19.963		
	Total	166.821	9			

a. bank name = Himalayan Bank Limited

b. Dependent Variable: Return on Equity

c. Predictors: (Constant), Leverage, Assets Quality Ratio, Cash Deposit Ratio, Credit Deposit Ratio

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	58.027	30.763		1.886	.118
	Assets Quality Ratio	-297.699	266.221	-.688	-1.118	.314
	Credit Deposit Ratio	-35.724	41.449	-.699	-.862	.428
	Cash Deposit Ratio	19.871	54.165	.200	.367	.729
	Leverage	-114.226	147.445	-.497	-.775	.474

a. bank name = Himalayan Bank Limited

b. Dependent Variable: Return on Equity

**A COMPARATIVE STUDY OF LIQUIDITY AND
PROFITABILITY ANALYSIS OF NEPALESE
COMMERCIAL BANK**

A THESIS PROPOSAL

Submitted By

Ayusha Pandey

Shanker Dev College Campus Roll No.:756/074 Exam

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Submitted To:

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In Partial fulfillment of the requirement of the Master's Degree of Business Studies (M.B.S.)

Putalisadak, Kathmandu

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1.1. Background of the Study

In order to pay current obligations, liquidity management is very important for every business organization. The business has enough liquid assets (i.e., Cash in hand, Cash at bank etc.) to meet the payment obligations. Liquidity ratios work with cash and near-cash assets (i.e., liquid fund) of a business on one side, and the immediate payment obligations (current liabilities) on the other side. If the coverage of the current liabilities by the cash and near-cash is insufficient, it indicates that the business might face difficulties in meeting its immediate financial obligations. This can affect the business operations and profitability of the organizations. The Liquidity versus Profitability Principle: There is a trade-off between liquidity and profitability; gaining more of one ordinarily means giving up some of the other (Saleem & Rehman, 2011).

Liquidity management is of crucial importance in financial management decision. The optimal of liquidity management could be achieved by company that manage the trade-off between profitability and liquidity management (Bhunia & Khan, 2011). (Bordereau and Graham 2010) analyzed the impact of liquidity on bank profitability for a sample of large U.S. and Canadian banks (1997 to 2009). Results indicate that profitability has been improved for banks (in US and Canada) that hold more liquid assets, however, there is a point at which holding further liquid assets diminishes a banks' profitability, all else equal. The paper also found that that relationship varies depending on a bank's business model and the state of the economy. The present study aims to reveal the relationship between liquidity and profitability of NABIL and Sanima while in conducting day to day operations. Comparing those two old private commercial banks in Nepal, this paper examines the effects of liquidity on profitability. To address the objective, we will take NABIL and Sanima for the period between 2071/72 to 2075/76. Considering the liquidity management can increase the profitability, the study has examined their liquidity management of NABIL and Sanima as well as profitability positions, using various financial tools and indicators. It was found that trend of average liquidity ratios and profitability of both banks are not seemed to be fluctuating but average variation in liquidity ratios as well as profitability.

History of modern commercial banking industry in Nepal begins from 1937, when Nepal Bank Limited was incorporated. However, it wasn't until 1984 when the HMG/Nepal started to liberalize the banking sector in the country. Private sectors rushed into the finance industries especially after the restoration of democracy in 1990 (Baral, 2005). NRB's major changes in policy measures including interest rate deregulation, indirect methods of monetary control an use of open market operations as the main policy tool, abolishment of the statutory provision of liquidity ratio, market based foreign exchange system, flexible licensing policy, and prudential legal framework has led to significant changes in the Nepali Banking Industry in the past three decades; these changes resulted into entry of foreign joint-venture banks and domestic private banks into the market and

widened the scale and scope of activities undertaken by the banks (Gajurel & Pradhan, 2010).

1.2. Statement of Problem

People are scared of investing their fund or saving due to unreliable and unsafe investment opportunities and projects. Today new banks are being established and existing is opening their branches in different areas. There is vast competition among the commercial banks. Commercial banks are at high time to focus their eyes for the better productive management for survival and growth.

“We find our economy in jeopardy: our remittances have decelerated, our balances of payments are in the negative and our banks are facing a liquidity crunch. And everyone is talking about the real estate bubble, which hasn't quite factored in, as of yet, to the crisis. The question is whether the ripples of the international crisis have finally caught up with us or have our problems been home grown due to continuous neglect of the economy by successive governments. In any economy there has to be some generation of wealth for it to prosper. Remittances from abroad for us have been the sustaining factor. The price increase in the urban real estate and until recently speculation led by easy credit has unrealistically hiked all areas relating to land purchase. An area that has gone unregulated, the cooperatives are said to have invested many folds more than the banking sector in real estate. There are no data to corroborate this. Furthermore, the housing sector is not an unproductive sector as it employs many through the employment of and investment in peripheral industries. Real Estate speculation is unproductive and has rightly been curtailed due to tightening of credit by the banks and financial institutions. Investment in gold is unproductive and more so when the national reserves of foreign currency is being depleted for the purpose. The question of liquidity crisis has been the topic in recent days. There have been many misnomers about the liquidity crisis. Banks investment into real estate alone does not cause a liquidity crunch.” (Pandey, S.R. 2010 A.D), Days ahead are not easy for the banking fraternity. The problems related to investment function of commercial banks of Nepal have been presented briefly as under:

- What are the current status of liquidity and profitability of the selected commercial bank in Nepal?
- What is the relationship between liquidity and profitability of the selected commercial bank in Nepal?
- Whether there is any impact of the liquidity toward profitability of the selected commercial bank in Nepal?

1.3. Objectives of the Study

The main objectives of the study were:

- 4) To examine the current status of liquidity and profitability of the selected commercial bank in Nepal.
- 5) To analyze the relationship between liquidity and profitability of the selected commercial bank in Nepal.
- 6) To examine the impact of the liquidity toward profitability of the selected commercial bank in Nepal.

1.4. Significance of the Study

Good and optimal fund mobilizing policy depicts the health of the banks. This would make a good impact on economy of a country if the banking sector poses a firm and by astronauts' behavior that is only possible when the fund mobilizing policy of the banks consider customer, national and government interest. The proper mobilization & utilization of domestic resources become indispensable for any developing country aspiring for a sustainable economic prosperity of the nation. The success and prosperity of the banks relies heavily upon the successful formulation and effective implementation of investment practices.

The significances of the study are pointed out below:

- The study will help to know how well these banks are utilizing their deposits.
- The study will help these banks to compare its performance and plan accordingly for future
- The study will help these banks to make sound programs and policies on basis of recommendation suggested.
- The study guides to investors, customers (depositors, loan takers as well as other types of clients), competitors, personnel of the banks, stockbrokers, dealers, market makers, etc. to take various decisions regarding deposits and borrowings
- Moreover, the study will be fruitful to students and various other groups having interested in banking sectors. The study will help to increase their knowledge regarding deposits, fund and its utilization and investment situations of Nepalese commercial banks.

1.5. Limitations of the Study

The study possesses some limitations of its own kind. Some of the unavoidable limitations of the study are follows:

- Only three sample selected commercial banks have been taken into consideration for the studied and they are NBL, NABIL and HBL out of 20 commercial bank in mid July 2023.
- This study covers all the relative data and information only for 10 years, i.e. from fiscal year 2012/13 to 2021/22.
- This study will be based on the only secondary data.
- Accuracy of data if the annual report is accurately maintained.

1.6. Review of Literature

This chapter will include conceptual framework i.e. theoretical analysis and review of related different studies. In this chapter, it will be attempted to show how this present study is different from previous studies. The review of literature of the proposed study will be based on the text books, official publications, journals, unpublished thesis, websites of sample bank etc. The necessary data and information at macro level will be collected from relevant institutions and authorities such as NRB, NEPSE, SEBON and their respective publications. In addition to above supplementary data and information will be collected from different library such as library of Shanker Dev College, T.U. Central library, etc.

1.7. Research Methodology

Research methodology is the process of arriving at the solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of facts and figures. It is the plan, structure and strategy of investigations conceived to answer the research question or test the research hypothesis. Research design is used to control variance (Wolff & Pant, 2003). It includes different dependent & independent variables. types of research design, research questions and hypothesis sample, data collection activities, technique of analysis etc.

Research Design

This study will be analytical in nature. A true research design is basically concerned with various steps to collect the data for analysis and draw relevant conclusion.

The research will examine the facts and postulates in certain frameworks on details and supplies the important information on subject matter, summary of the study, major findings of the study, recommendations, conclusion etc. are the most significant information among them, they are derived with the help of some financial and statistical tools were adapted to evaluate the investment policy of joint venture banks viz. Nabil Bank Limited and Sanima Bank Limited.

Finally research design is the plan, structure and strategy of investigations conceived so as to obtain answers to research questions and to control variances. To achieve this study descriptive and analytical research designs have been used.

Population and Sample

The sampling process involves random sampling, where the selection of the sample is based on a random basis. Correspondingly, financial statements from three commercial banks over a research period of ten years, i.e., FY 2012/13 to FY 2021/22, have been chosen as the sample for the research.

During the fiscal year 2021/22, there are a total of 20 commercial banks in Nepal. Out of these 20 commercial banks, three banks have been selected for the study. These three commercial banks are specifically chosen as the sample banks for the research.

Nature and Sources of Data

This study relies on secondary data, which will be employed to analyze the relationship, cause-and-effect associations, and predictive strength between dividend policy and its influencing factors. The data for firm-specific variables will be gathered from the annual reports of the sample firms available in the database provided on their respective websites. Additionally, data from the NEPSE, SEBON, and NRB databases will be extracted to fulfill the study's requirements. Determinants of dividends for commercial banks will be collected for each year from 2012/13 to 2021/22. The study will utilize panel data to analyze the relationship between liquidity and profitability.

Methods of Analysis

To achieve the objective of the study, various financial and statistical tools will be used. The analysis of data will be done according to the pattern of data available. Due to limited time and resources, simple analytical statistical tools such as percentage, graph is used in this study. Likewise, some financial tools such as ratio analysis and trend analysis will also be used for financial analysis. Followings will be various types of liquidity ratios are applied in

i.) Current Ratio

The current ratio is the ratio of total current assets and current liabilities. It shows the relationship between current assets and current liabilities.

Mathematically it is represented as:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liability}}$$

Current Liability

Current assets include cash and bank balance, money at call or short-term notice, loans and advances investment in government securities and other interest receivable and miscellaneous current assets whereas current liabilities include deposits and other accounts of short term loan, bills payable, tax provision staff bonus, dividend payable and miscellaneous current liabilities,

The widely accepted standard of current ratio is 2:1 but accurate standard depends on circumstances in case of seasonal business action.

ii.) Cash and Bank Balance to Current Assets Ratio

This ratio measures the percentages of liquid assets i.e. cash and Bank balance among the current assets of a firm. Higher ratio shows the higher capacity of firms to meet the cash demand.

$$\text{Cash \& Bank Balance to Current Assets Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Current Asstes}}$$

Hence, cash and banks balance includes cash in hand, foreign cash and foreign banks.

iii.) Total Deposit to Total Working Fund Ratio

This ratio is used to find the percentage of total deposit on total working fund. This ratio can be calculated dividing the amount of total deposit by total working fund and can be stated as follows:

$$\text{Total Deposit to Total Working Fund Ratio} = \frac{\text{Total Deposit}}{\text{Total Working Fund}}$$

b. Profitability Ratios

Profitability ratios are calculated to measure the efficiency of operation of a firm on term of profit. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio, better the financial performance of the bank and vice versa. Profitability position can be evaluated through following different way.

i) Return on Total Assets

This ratio establishes the relationship between net profit and total assets. This ratio is also called "profit to assets ratio". It is calculated dividing return on net profit/loss by total working fund and can be expressed as:

$$\text{Return on Total Assets} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$$

ii) Return on Loan and Advances Ratio

Return on loan and advances ratio shows how efficiency of the Banks and finance companies have utilized their resources to earn good return from provided loan and advances. This ratio is computed to divide net profit/loss by the total amount of loan and advances. It can be mentioned as:

$$\text{Return on Loan \& Advances Ratio} = \frac{\text{Net Profit/Loss}}{\text{Total Loan \& Advances}}$$

iii) Total Interest Earned to Total Working Fund Ratio

Total interest earned to total working fund is calculated to find out the percentage of interest earned to total assets. Higher the ratio indicates the better performance of financial institutions in the form of interest earning on the better working fund. This ratio is calculated dividing total interest earned from investment by total working fund and is mentioned as below:

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Working Fund}}$$

3.4.2 Statistical Tools

Statistical tools help to find out the trends of financial position of the bank. It also analyzes the relationship between variables and helps banks to make appropriate investment policy regarding to profit maximization and deposit collection. fund utilization through providing loan & advances or investment on other companies. Ranges of statistical tools are also used to analyze the collected data and to achieve the objectives of the study. Simple analytical tools such as arithmetical mean, standard deviation, coefficient of variation, trend analysis adopted which are as follows:

A. Arithmetical Mean

It represents the entire data by a single value. It provides the gist and gives the bird's eye view of the huge mass of unwieldy numerical data. It is calculated as:

$$\bar{X} = \frac{\sum X}{N}$$

where,

X= Arithmetic mean

N = Number of observations
X = Sum of observation

B. Standard Deviation

Standard deviation is an important and widely used to measure dispersion. A standard deviation is the positive square root of the arithmetic mean of the squares of the deviations of the given observations from their arithmetic mean. It is denoted by the letter σ (sigma).

In this study standard deviation of different ratios are calculated as:

$$\sigma = \sqrt{\frac{\sum X^2}{N} - \left(\frac{\sum X}{N}\right)^2}$$

Where,

σ = Standard Deviation

$\frac{\sum X^2}{N}$ = Sum of square of observation

N

$\frac{\sum X}{N}$ = Sum of squares of mean

$\left(\frac{\sum X}{N}\right)^2$

N

C. Coefficient of Variation

The Coefficient of variation is the most commonly used measure of relative variation. It is the relative measures of dispersion, comparable across distribution, which is defined as the ratio of the standard deviation to the mean expressed in percent. It is used in such problems where the researcher wants to compare the variability of data more than two years. A series with smaller C.V. is said to be less variable or more consistent or more homogeneous or more uniform or more stable than the others and vice versa.

It is calculated as:

$$C.V = \frac{\sigma}{\bar{X}} \times 100$$

where:

σ =standard deviation

μ =mean

1.8 Organization of the Study

The study has been organized into five chapters. They are as follows:

Chapter 1: Introduction is the introductory chapter, which has covered background of the study, focus of the study, statement of the problem, objectives of the study, significance of the study etc.

Chapter II: Review of Literature has included conceptual framework i.e. theoretical analysis and review of related different studies. In this chapter, it has been attempted to show how this present study is different from previous studies.

Chapter III: Research Methodology This chapter has dealt with the research design, population and sample, sources of data, data collection techniques and data analysis tools (financial tools and statistical tools) and methods of analysis and presentations.

Chapter IV: Presentation and Analysis of Data describes the research methodology employed in the study. It has included secondary data and primary data presentation, data analysis, interpretation, testing of hypothesis and major findings.

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